

ABSTRACT

The invention relates to a process for recovering 3-aminomethyl-3,5,5-trimethylcyclohexylamine (isophoronediamine, IPDA) having a fractionally distilled cis/trans isomer ratio of at least 73/27. The process includes the following steps:

- a) providing IPDA in a cis/trans isomer ratio of $<73/27$;
- b) feeding IPDA into the middle region of a distillation column having internals and distilling the IPDA in this distillation column at a temperature of from 5 to 300.degree. C. and a pressure of from 10 to 2000 mbar;
- c) optionally further distilling the IPDA obtained by step b) in at least one further column, and thus further purifying the IPDA;

where steps b) and optionally c) separate the IPDA used in step a) into at least five fractions ia) to iv):

- ia) the organic proportion of a fraction of impurities having lower boiling points than trans-IPDA,
- ib) the aqueous proportion of a fraction of impurities having lower boiling points than trans-IPDA,
- ii) a fraction of impurities having higher boiling points than cis-IPDA,
- v) an IPDA fraction having a cis/trans isomer ratio of $\geq 73/27$ and
- vi) a depleted IPDA fraction having a cis/trans isomer ratio of $\leq 66/34$.